

**A note on *Calliostoma multiliratum* auctt. (non Sowerby, 1875) in South Africa (Mollusca: Gastropoda: Trochidae)**

by

**D. G. Herbert**

(Natal Museum, Pietermaritzburg, South Africa)

ABSTRACT

A specimen from the original type material of *Calliostoma multiliratum* (Sowerby, 1875) has been located; it is figured and designated lectotype. *C. multiliratum* appears to be a Chinese/Japanese species. No similar material is known from South Africa and local material previously known as *C. multiliratum* should be referred to *C. crossleyae* Smith, 1910.

An updated synonymy and a summary of information currently available for *C. crossleyae* are given.

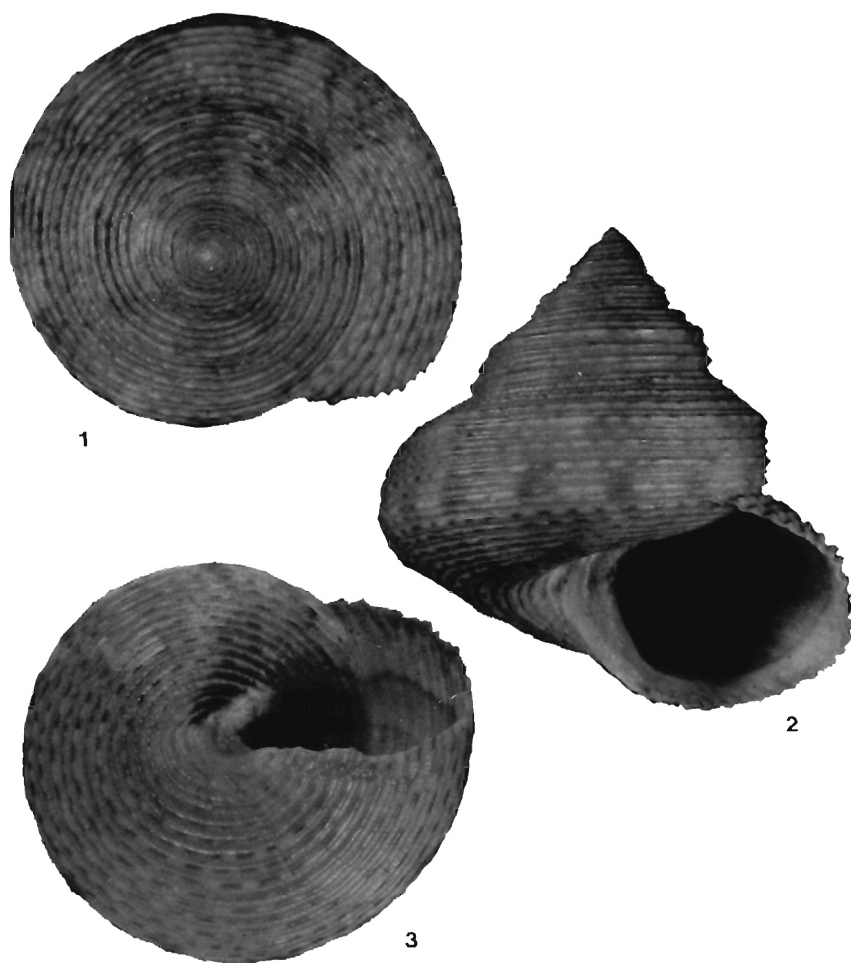
INTRODUCTION

Considerable uncertainty has for some time surrounded the use of the name *Calliostoma multiliratum* (Sowerby, 1875) for a southern African species of *Calliostoma* Swainson, 1840. Sowerby gave 'Cape of Good Hope' as the locality for his new taxon, but no material is currently known from that locality (or the Cape Peninsula as a whole). That Sowerby's original locality might be incorrect was pointed out both by Sowerby himself (Sowerby 1897:30) and by Pilsbry (1889); Springsteen (1978 1981) has elaborated on this. However, the 'Cape of Good Hope', as used by authors in the nineteenth and early twentieth centuries, is a notoriously vague and inaccurate locality and may have meant anywhere along the entire Cape coast (including Transkei—the south-western distribution limit of the local species generally known by this name) or even South Africa as a whole. Consequently locality data are of little use in resolving the situation and it is not possible to reject Sowerby's *multiliratum* for southern African material on grounds of incorrect or inaccurate provenance alone.

Kilburn (1972) placed *Calliostoma crossleyae* Smith, 1910 in the synonymy of *C. multiliratum*, but Springsteen (1981), quoting correspondence with Kilburn, indicated that the original figures of *multiliratum* show little resemblance to *crossleyae* or any other southern African *Calliostoma*. He also drew attention to the fact that *multiliratum* was currently used for a Japanese species (Nomura 1940, Kuroda & Habe 1952, Habe 1964, Kaicher 1979:2105). Springsteen, however, was not able to make a conclusive statement, as the type material of *C. multiliratum* could not be found in the BM (*vide* Kilburn). I have since located type material of this taxon in the ANSP (*per* Robertson *et al.* 1983) and can confirm that *C. multiliratum* and *C. crossleyae* represent different species and that no species closely resembling *C. multiliratum* occurs in southern Africa. The most similar species is *C. ornatum* (Lamarck, 1822), but that has a finely granular spiral sculpture and

less impressed sutures. *C. crossleyae* differs in being smaller (height < 13 mm), in having coarser, more uneven spiral sculpture and in having shouldered whorls frequently with a somewhat canaliculate suture.

The type material of *multiliratum* in the ANSP (No 40610, one specimen) is labelled 'types, Prevost coll. China'. There seems little reason to doubt its authenticity. Not only is Sowerby (III) known to have bought and dispersed the Prevost collection (Dance 1986), but other species described in Sowerby's 1875 paper came from that collection (although the collection is not specifically mentioned in relation to *C. multiliratum* [see *Ziziphinus multiliratus*]). This is evidently one of a series of syntypes as the original description was based on at least two specimens and the labels kept with the ANSP specimen indicate that there was originally more than one shell in the lot. I here figure and designate this remaining specimen as lectotype (Figs 1–3). It appears to be Sowerby's 'var. B' with a reddish colour



Figs 1–3. *Calliostoma multiliratum* (Sowerby, 1875), lectotype, diameter 15,3 mm, ANSP No 40610.

and weaker granulation. I refrain from emending the type locality until more distribution data are available.

Sowerby's listing of *Calliostoma liratum* in 1900, based on material collected in Pondoland by Mrs Agnes Filmer and sent to him by Dr H. Becker, was clearly a *lapsus calami* for *multiliratum*. Becker sent the specimens to Sowerby together with a data slip on which he had written an identification number and instructions that Sowerby return two of them. This Sowerby evidently did and the material is now housed (with the rest of the Becker collection) in the NM (Acc. No. NM B1105), labelled in Sowerby's hand-writing as '*Calliostoma multiliratum* (*Ziziphinus multiliratus*, Sow. Proc. Zool. Soc. 1875, confirms locality!)'. Unfortunately Sowerby's belief that this material was conspecific with his original *multiliratus* was unfounded. Its resemblance to the type is purely superficial and it is without doubt referable to *C. crossleyae*. Sowerby's statement 'I have no longer any hesitation in including it [*liratum*] in the list of South African species' was consequently unjustified.

I give below an updated synonymy and a summary of information currently available regarding *C. crossleyae*.

*Calliostoma crossleyae* Smith, 1910 **stat. rev.**

*Calliostoma liratum* (*laps. cal.*); Sowerby, 1900:6.

*Calliostoma multiliratum* (*non* Sowerby, 1875); Smith, 1903:389; Barnard, 1963:256, fig. 15g.

*Calliostoma crossleyae* Smith, 1910:205, pl. 7, fig. 17. Kilburn, 1972:395, fig. 2 (lectotype designated and figured); Springsteen, 1981:8, No. 15; Kaicher, 1979:2088. Type locality: Port Shepstone, Natal south coast (see below).

*Calliostoma multilirata*; Kilburn, 1972:395, fig. 2; Springsteen, 1978:10, pl. 1, fig. 4a-c (see also Addendum No. 1); *idem*, 1981:8, fig. 15.

Type material: Lectotype in NM (2480/T521), designated and figured by Kilburn (1972); paralectotype BM (1911.8.30.14), figured by Kaicher (1979:2088).

Type locality: Kilburn (1972) designated the specimen collected by H. Burnup at Port Shepstone on the Natal south coast as lectotype (NM 2480/T521) and thus, according to article 74(a)(iii) of the ICZN rules, this becomes the type locality.

Distribution: Northern Zululand south to south-western Transkei, beach drift to 140 m, living specimens known only from 140 m.

Locality data (all NM): ZULULAND: Kosi Bay, No. 13 Reef, hand-dredged sand, 10–12 m, dived D. Herbert (E9460); Sodwana Bay, Sponge Reef (inner edge), 20–22 m, dived D. Herbert (D4941); off Jesser Point, 48–58 m, sand, shell rubble, dredged NMDP (D6526); off Cape Vidal, 50 m, medium sand, dredged NMDP (E4980). NATAL: Durban, H. Burnup (1196); Durban Bay, shallow water dredgings, B. J. Young (E1008); Isipingo, W. Falcon, *ex* C. Alexander coll'n (8935); off Park Rynie, 50 m, coarse sand, dredged CSIR—Water Research (B241); do, living, 140 m, sponge rubble, some sand, dredged NMDP (D4932); Sezela, M. Sweeny, *ex* H. Burnup coll'n (2479); Shelly Beach, Port Shepstone, Mrs R. Cock, R. Kilburn (8936, A3746). TRANSKEI: Pondoland, Mrs A. Filmer, *ex* H. Becker coll'n (B1105, 1200); do, *ex* Albany Mus. (B5586, B6647); do, R. Kilburn (8937); Mzamba, beach drift, R. Kilburn & D. Herbert (B4574, D2949); off Mtentu River, 50 m, shell gravel, dredged NMDP (C1686);

off Whale Rock, 20–26 m, sand and gorgonians, dredged NMDP (C3238); Coffee Bay, beach drift, R. Kilburn (8941); Xora River area, beach drift, R. Kilburn (6884); Nthlonyane River area, beach drift, R. Kilburn (6883, B1455).

Remarks: *C. crossleyae* is not a common species and appears, like several other local *Calliostoma* species, to be a subtropical east coast endemic. The majority of specimens have been collected in beach drift indicating a bathymetric range extending into relatively shallow water, but it is probably the rarest local *Calliostoma* species which ever washes ashore. Living specimens have only been found by dredging (140 m). *C. crossleyae* would seem best referred to the subgenus *Tristichotrochus* Ikebe, 1942, but calliostomatine subgenera have yet to be adequately defined.

#### ABBREVIATIONS

- ANSP = Academy of Natural Sciences, Philadelphia, USA.  
 BM = The Natural History Museum, London.  
 CSIR = Council for Scientific and Industrial Research, South Africa.  
 NM = Natal Museum, Pietermaritzburg, South Africa.  
 NMDP = Natal Museum dredging project.

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